

# DEPARTMENT OF PLANNING AND NATURAL RESOURCES

## DIVISION OF ENVIRONMENTAL PROTECTION

#45 MARS HILL

FREDERIKSTED, ST. CROIX 00841



## TERRITORIAL POLLUTION DISCHARGE ELIMINATION SYSTEM

PERMIT NUMBER VI0000019

This Territorial Pollutant Discharge Elimination System (TPDES) permit is issued in compliance with Title 12 of the Virgin Islands Code, Chapter 7, Section 185 in accordance with the provisions of the Federal Water Pollution Control Act, as amended, (33 USC 1251 et seq., hereinafter referred to as "The Act").

HOVENSA, L.L.C. (herein referred to as the "Permittee")

No. 1 Estate Hope, St. Croix

Christiansted, VI 00820

The Permittee is authorized to discharge from the facility named above, to Class B receiving waters listed in the table below, in accordance with effluent limitations and monitoring requirements and other conditions set forth in parts I and II hereof.

TPDES Permit No. VI0000019	DESCRIPTION Privately Owned Petroleum Refining Facility	RECEIVING WATER: Limetree Bay, Krause Lagoon, Canegarden Bay
CLASSIFICATION: MAJOR, INDUSTRIAL	Flow (MGD): 36.16	

Date Original Application Received: 01/26/07 Date Complete Application Received: 01/26/07

Permit Writer(s): [Signature]

Date: 2/22/08

Program Manager Approval: [Signature]

Date: 2/22/08

Director Approval: [Signature]

Date: 2/22/08

This permit shall become effective on March 1, 2008.

This permit and authorization to discharge expires at midnight on February 28, 2013, consistent with 12 V.I.C. §185 (e).

[Signature]  
Robert S. Mathes  
Commissioner

Date

2/27/08



AUTHORIZATION TO DISCHARGE UNDER THE USVI  
TERRITORIAL POLLUTANT DISCHARGE ELIMINATION SYSTEM

**PART I – EFFLUENT LIMITATIONS & SPECIAL CONDITIONS**

12 V.I.R.&Regs. §186 (2004) designates classes and general standards applicable to defined Virgin Island Coastal Water sections. Outfalls 001, 008, 009 and 011 discharge to **Limetree Bay** via **Hess Oil Virgin Island Harbor** (Hess Harbor); Outfalls 006, 007, and 012 discharge to **Canegarden Bay**; and Outfalls 004, 005, and 013 discharge to **Krause Lagoon**. These receiving waters are considered Waters of the Virgin Islands, and are classified as **Class B (Canegarden Bay and Krause Lagoon)** and **Class C Waters (Limetree Bay)**.

40 CFR §419 Subpart B – Cracking Subcategory (1982) designates effluent limitations and regulations applicable to the HOVENSA refinery for this permitting cycle. Calculations to determine specific effluent requirements for the HOVENSA facility can be found in the Calculations Section.

Where no specific sampling requirements are listed, the Permittee shall follow sampling and analysis procedures pursuant to the most current version of 40 CFR §136.

Discharge Monitoring Reports (DMRs) shall be submitted **monthly**.

**I. PRE-PHASE II: Effective Date of Permit (EDP) through sixty (60) days after first discharge from Outfall 401**

The effluent limitations set forth in this section shall be in effect from the Effective Date of this Permit (EDP), and last until sixty (60) days after first discharge from Outfall 401, upon which the effluent limitations located in the subsequent section shall take effect.

Outfall 001 shall be composed of wastewater from the lagoon systems, wastewater from Outfall 010, stormwater, ballast water, desalination plant reject water, non-contact cooling water, and miscellaneous non-process waters (e.g., fire test water) and shall discharge to the West Basin of the Hess Harbor. Discharge from the outfall shall be limited and monitored by the permittee as specified below:

**A. OUTFALL 001**

PARAMETER	Limit Basis	DISCHARGE LIMITATIONS				Monitoring Requirements	
		Daily Maximum (lbs/day)	Monthly Average (lbs/day)	Minimum Value	Maximum Value	Frequency	Sample Type
BOD <sub>5</sub>	3	7091.0	3902.0			2 per month	Composite
TSS	3	4929.0	3127.9			2 per week	Composite
TOC <sup>1</sup>	3	15601.0	8583.0			2 per month	Composite
O&G <sup>2</sup>	3,4	2130.7	1143.0			2 per month	Grab
Phenolic Compounds	3	52.59	17.39			1 per month	Composite
Ammonia as N	3	5582.0	2537.3			1 per month	Composite
Sulfide	3	46.22	20.78			1 per month	Composite
Total Chromium	3	64.52	28.78			2 per year	Composite
Hexavalent Chromium	3	4.70	2.08			(6)	Composite



D.O. (mg/L)	4			5.0		2 per week	Grab
pH <sup>3,4</sup> (S.U.)	4			6.7	8.5	Continuous Monitoring	
Flow (MGD)	--	M/R	M/R				
Temperature <sup>5</sup> (°F)	2,4	101.9	99.5				

<b>Limit Basis codes:</b>
1. Best Professional Judgment
2. Previous Permit Limits
3. 40 CFR §419 (1982)
4. 12 V.I.R.&Regs. §186 (2004)

<b>S.U.</b> = standard units	<b>M/R</b> = monitor & report
<b>Composite</b> = A flow proportional composite sample collected manually or automatically, and discretely or continuously, for the entire discharge of the Monitored 24-hour period. Samples collected at hourly or smaller intervals may be collected only where the permittee demonstrates that the discharge flow rate (gallons per minute) does not vary by 10% or more during the monitored discharge.	
<b>Grab</b> = An individual sample collected over a period of time not to exceed 15 minutes.	

<sup>1</sup>TOC monitored in lieu of COD since chloride > 1,000 mg/L. Ratio of TOC to BOD<sub>5</sub> is assumed to be 2.2. Based on 40 CFR §419.13(d) (1982).

<sup>2</sup>In addition to this quantitative limitation, the Permittee shall make a visual observation at the outfall verify that neither visible oil film nor globules of grease shall be present in any waters. Best Professional Judgment based on 12 V.I.R.&Regs. §186-4 (b)(8) (2004).

<sup>3</sup>Additionally, the normal range of pH shall not be extended at any location by more than ±0.1 pH unit. Measuring error due to instrument calibration/drift shall be allowed insofar as instrument's design dictate or estimate.

<sup>4</sup>Pursuant to 40 CFR §401.17(1) (1974): The total time during which the pH values are outside the required range shall not exceed 7 hours and 26 minutes in any calendar month. Pursuant to 40 CFR §401.17(2) (1974): No individual excursion from the range of pH shall exceed 60 minutes.

<sup>5</sup>This limitation holds at end-of-pipe. In addition to this limitation, temperature of the receiving water body shall neither exceed 32°C at any time, nor as a result of waste discharge to measure 1.0°C beyond normal conditions. This additional temperature limitation holds at the mixing zone boundary and beyond. See thermal policies (12 V.I.R.&Regs. §186-5 (2004)) in the special conditions section for thermal mixing zone information and limitations within the mixing zone.

<sup>6</sup>Hexavalent Chromium will be analyzed whenever Total Chromium concentration is greater than 10 µg/L.



Outfall 010 shall be composed of treated wastewater from the FCC and Coker Area and shall discharge to Outfall 001. Discharge from the outfall shall be limited and monitored by the permittee as specified below:

**B. OUTFALL 010**

PARAMETER	Limit Basis	DISCHARGE LIMITATIONS				Monitoring Requirements	
		Daily Maximum (lbs/day)	Monthly Average (lbs/day)	Minimum Value	Maximum Value	Frequency	Sample Type
BOD <sub>5</sub>	3	1814.0	970.0			2 per month	Composite
TSS	3	1251.0	781.9			Bimonthly	Composite
TOC <sup>1</sup>	3	3991.0	2133.0			Bimonthly	Composite
O&G	3	531.7	290.1			Bimonthly	Grab
Phenolic Compounds	3	13.14	6.26			Bimonthly	Composite
Ammonia as N	3	2064.0	938.3			2 per month	Composite
Sulfide	3	11.57	5.32			Bimonthly	Composite
Total Chromium	3	26.27	15.33			2 per year	Composite
Hexavalent Chromium	3	2.25	1.00			(3)	Composite
pH <sup>2</sup> (S.U.)	3			6.0	9.0	Continuous Monitoring	
Flow (MGD)	--	M/R	M/R				

**Limit Basis codes:**

1. Best Professional Judgment
2. Previous Permit Limits
3. 40 CFR §419 (1982)
4. 12 V.I.R.&Regs. §186 (2004)

**S.U.** = standard units

**M/R** = monitor & report

**Composite** = A flow proportional composite sample collected manually or automatically, and discretely or continuously, for the entire discharge of the Monitored 24-hour period. Samples collected at hourly or smaller intervals may be collected only where the permittee demonstrates that the discharge flow rate (gallons per minute) does not vary by 10% or more during the monitored discharge.

**Grab** = An individual sample collected over a period of time not to exceed 15 minutes.

<sup>1</sup>TOC monitored in lieu of COD since chloride > 1,000 mg/L. Ratio of TOC to BOD<sub>5</sub> is assumed to be 2.2. Based on 40 CFR §419.13(d) (1982).

<sup>2</sup>Pursuant to 40 CFR §401.17(1) (1974): The total time during which the pH values are outside the required range shall not exceed 7 hours and 26 minutes in any calendar month. Pursuant to 40 CFR §401.17(2) (1974): No individual excursion from the range of pH shall exceed 60 minutes.

<sup>3</sup>Hexavalent Chromium will be analyzed whenever Total Chromium concentration is greater than 10 µg/L.



**II. POST-PHASE II: Sixty (60) days after discharge from Outfall 401 through expiration of permit (EDP + 5 years)**

The effluent limitations set forth in this section shall take effect beginning sixty (60) days after the first discharge from Outfall 401 and shall expire upon expiration of this permitting cycle.

Outfall 001 shall be composed of wastewater from Outfall 401, non-process waters from the lagoon systems, stormwater, ballast water, desalination plant reject water, non-contact cooling water, and miscellaneous non-process waters (e.g., fire test water) and shall discharge to the West Basin of the Hess Harbor. Discharge from the outfall shall be limited and monitored by the permittee as specified below:

**A. OUTFALL 001**

PARAMETER	Limit Basis	DISCHARGE LIMITATIONS				Monitoring Requirements	
		Daily Maximum (lbs/day) <sup>(3)</sup>	Monthly Average (lbs/day) <sup>(3)</sup>	Minimum Value	Maximum Value	Frequency	Sample Type
O&G	4					2 per month	Observation
D.O. (mg/L)	4			5.0		2 per week	Grab
pH <sup>1</sup> (S.U.)	4			6.7	8.5	Continuous Monitoring	
Flow (MGD)	--	M/R	M/R				
Temperature <sup>2</sup> (°F)	4	101.9	99.5				

**Limit Basis codes:**

1. Best Professional Judgment
2. Previous Permit Limits
3. 40 CFR §419 (1982)
4. 12 V.I.R.&Regs. §186 (2004)

**S.U.** = standard units

**M/R** = monitor & report

**Composite** = A flow proportional composite sample collected manually or automatically, and discretely or continuously, for the entire discharge of the Monitored 24-hour period. Samples collected at hourly or smaller intervals may be collected only where the permittee demonstrates that the discharge flow rate (gallons per minute) does not vary by 10% or more during the monitored discharge.

**Grab** = An individual sample collected over a period of time not to exceed 15 minutes.

<sup>1</sup>Additionally, the pH shall not exceed 0.1 standard units beyond normal conditions due to waste discharge.

<sup>2</sup>This limitation holds at end-of-pipe. In addition to this limitation, temperature of the receiving water body shall neither exceed 32°C at any time, nor as a result of waste discharge to measure 1.0°C beyond normal conditions. This additional temperature limitation holds at the mixing zone boundary and beyond. See thermal policies (12 V.I.R.&Regs. §186-5 (2004)) in the special conditions section for thermal mixing zone information and limitations within the mixing zone.

<sup>3</sup>This is a qualitative limitation that shall be verified by visual observation. The limitation is based on 12 V.I.R.&Regs. §186-3(b)(8)(2004) and is as follows: No residue attributable to wastewater nor visible oil film nor globules of grease shall be present in any waters.



## B. OUTFALL 401

Outfall 401 shall discharge to Outfall 001 and shall be limited and monitored by the permittee as specified below:

PARAMETER	Limit Basis	DISCHARGE LIMITATIONS				Monitoring Requirements	
		Daily Maximum (lbs/day)	Monthly Average (lbs/day)	Minimum Value	Maximum Value	Frequency	Sample Type
BOD <sub>5</sub>	3	7091.0	3902.0			2 per month	Composite
TSS	3	4929.0	3127.9			Bimonthly	Composite
TOC <sup>1</sup>	3	15601.0	8583.0			Bimonthly	Composite
O&G	3	2130.7	1143.0			Bimonthly	Grab
Phenolic Compounds	3	52.59	17.39			Bimonthly	Composite
Ammonia as N	3	5582.0	2537.3			2 per month	Composite
Sulfide	3	46.22	20.78			Bimonthly	Composite
Total Chromium	3	64.52	28.78			2 per year	Composite
Hexavalent Chromium	3	4.70	2.08			<sup>(3)</sup>	Composite
pH <sup>2</sup> (S.U.)	3			6.0	9.0	Continuous Monitoring	
Flow (MGD)	--	M/R	M/R				

### Limit Basis codes:

1. Best Professional Judgment
2. Previous Permit Limits
3. 40 CFR §419 (1982)
4. 12 V.I.R.&Regs. §186 (2004)

**S.U.** = standard units

**M/R** = monitor & report

**Composite** = A flow proportional composite sample collected manually or automatically, and discretely or continuously, for the entire discharge of the Monitored 24-hour period. Samples collected at hourly or smaller intervals may be collected only where the permittee demonstrates that the discharge flow rate (gallons per minute) does not vary by 10% or more during the monitored discharge.

**Grab** = An individual sample collected over a period of time not to exceed 15 minutes.

<sup>1</sup>TOC monitored in lieu of COD since chloride > 1,000 mg/L. Ratio of TOC to BOD<sub>5</sub> is assumed to be 2.2. Based on 40 CFR §419.13(d) (1982).

<sup>2</sup>Pursuant to 40 CFR §401.17(1) (1974): The total time during which the pH values are outside the required range shall not exceed 7 hours and 26 minutes in any calendar month. Pursuant to 40 CFR §401.17(2) (1974): No individual excursion from the range of pH shall exceed 60 minutes.

<sup>3</sup>Hexavalent Chromium will be analyzed whenever Total Chromium concentration is greater than 10 µg/L.



### III. BALLAST WATER DISCHARGE

In addition to the limits set forth in Sections I and II of this permit, the Permittee shall be permitted to discharge an additional amount of pollutants as specified below based on the amount of ballast water (as defined by 40 CFR §419.11(c) (1982)) treated at the refinery.

Pursuant to 40 CFR §419.22(c) (1982), which refers to 40 CFR §419.12(c) (1982), the Permittee shall abide by the following effluent limitations applicable to ballast water discharge:

PARAMETER	DISCHARGE LIMITATIONS			
	Daily Maximum (lbs/1000 gal flow)	Monthly Average (lbs/1000 gal flow)	Minimum Value	Maximum Value
BOD <sub>5</sub>	0.40	0.21		
TSS	0.26	0.17		
TOC <sup>1</sup>	0.88	0.462		
O&G	0.126	0.067		
pH (S.U.)			6.0	9.0
Flow (MGD)	M/R	M/R		

<sup>1</sup>TOC monitored in lieu of COD since chloride > 1,000 mg/L. Ratio of TOC to BOD<sub>5</sub> is assumed to be 2.2. Based on 40 CFR §419.13(d) (1982).

**Monitoring Requirements:** The parameters listed in the table above shall be measured and recorded daily. Flow is defined as the volume of discharge from the ballast water storage tanks to the treatment system. For Pre-Phase II monitoring, the monitoring shall be performed at Outfall 001. For Post-Phase II monitoring, the monitoring shall be performed at Outfall 401 (old Outfall 010).

**Reporting Requirements:** Ballast Water Credits shall be reported monthly and submitted along with the DMRs in a format acceptable to both HOVENSA and DPNR.



#### IV. CONTAMINATED RUNOFF

In addition to the limits set forth in Sections I and II of this permit, the Permittee is allowed to discharge an additional amount of pollutants as specified below based on the amount of contaminated runoff (as defined by 40 CFR §419.11(g) (1982)) treated at the refinery.

Pursuant to 40 CFR §419.22(e)(2) (1982), the Permittee shall abide by the following BPT effluent limitations applicable to contaminated runoff if the runoff is commingled or treated with process wastewater, or if it consists solely of contaminated runoff which exceeds 15 mg/L O&G or 110 mg/L TOC and is not commingled or treated with any other type of wastewater:

PARAMETER	DISCHARGE LIMITATIONS			
	Daily Maximum (lbs/1000 gal flow)	Monthly Average (lbs/1000 gal flow)	Minimum Value	Maximum Value
BOD <sub>5</sub>	0.4	0.22		
TSS	0.28	0.18		
TOC <sup>1</sup>	0.88	0.484		
O&G	0.13	0.067		
Phenolic Compounds	0.0029	0.0014		
Total Chromium <sup>2</sup>	0.0050	0.0018		
Hexavalent Chromium	0.00052	0.00023		
pH (S.U.)			6.0	9.0
Flow (MGD)	M/R	M/R		

<sup>1</sup>TOC monitored in lieu of COD since chloride > 1,000 mg/L. Ratio of TOC to BOD<sub>5</sub> is assumed to be 2.2. Based on 40 CFR §419.13(d) (1982).

<sup>2</sup>Total Chromium limitation is BAT derived from 40 CFR §419.23(f)(2) (1982).

**Monitoring Requirements:** All contaminated runoff effluent shall be measured for the parameters listed in the tables above and recorded when discharging. Flow is defined as the volume of runoff from storm events that is considered contaminated according to 40 CFR §419.11(g) (1982).

**Reporting Requirements:** Contaminated Runoff Credits shall be reported monthly and submitted along with the DMRs in a format acceptable to both HOVENSA and the permitting authority.



## V. STORMWATER DISCHARGE LIMITS AND REQUIREMENTS:

As part of HOVENSA's Facility Integrated Contingency Plan, a Stormwater Pollution Prevention Plan (SWPPP) shall be kept up-to-date by the Permittee for the stormwater associated with industrial activity at this facility. The plan shall identify potential sources of pollution which may be expected to affect the quality of stormwater discharges associated with the industrial activity at the facility, describe and ensure implementation of practices which will be used to reduce the pollutants in stormwater discharges from the facility, and assure compliance with the terms and conditions of this permit.

In addition to the SWPPP, the Facility Integrated Contingency Plan shall contain the following components:

- Site Description (e.g., facility activities, location map, stormwater flow directions, etc.)
- Summary of Potential Pollutant Areas and Sources & Potential Spills and Leaks
- A Best Management Practices (BMP) Plan containing a description of Existing and Planned BMPs (both structural and non-structural)
- An extensive Spill Prevention Control & Countermeasures (SPCC) Plan & Facility Response Plan (FRP) detailing the procedures that will be followed for cleaning up spills or leaks, including the locations of onsite spill control equipment and properly trained responders
- A Preventive Maintenance Plan (PMP) or evidence of inspection and maintenance schedules of stormwater management devices as well as the facility equipment and system itself to avoid breakdowns or failures that may result in discharges of pollutants to water bodies.

The BMP plan, which has been incorporated into the Integrated Contingency Plan (ICP), shall be submitted to DPNR whenever changes to the plan are made.

The following limits apply to stormwater discharged from Outfall 001, as well as stormwater outfalls 004, 006, 007, 008, 009, and 011 as described in the HOVENSA submittal of EPA Form 2F:

PARAMETER	DISCHARGE LIMITATIONS			
	Daily Maximum (mg/L)	Monthly Average (mg/L)	Minimum Value	Maximum Value
O&G	15			
TOC <sup>1</sup>	110			
Flow (MGD)	M/R	M/R		

<sup>1</sup>TOC monitored in lieu of COD since chloride > 1,000 mg/L. Ratio of TOC to BOD<sub>5</sub> is assumed to be 2.2. Based on 40 CFR §419.13(d) (1982).

**Monitoring Requirements:** The Permittee shall monitor for the above parameters at each outfall that discharges Stormwater at least once per month when discharging. If an outfall is tested more than once per month, that information and test results are to be included with the DMR of the respective month. Violations to the limits listed above will be considered a violation of this TPDES permit and therefore be subject to all related permit requirements.

**Reporting Requirements:** Stormwater results shall be reported monthly and submitted along with the DMRs in a format acceptable to both HOVENSA and the permitting authority.



## **VI. GENERAL WATER QUALITY CONDITIONS**

1. There shall be no discharge of materials that will settle to form objectionable deposits.
2. There shall be no discharge of floating debris, oil, scum, or other matter.
3. There shall be no discharge of substances producing objectionable color, odor, taste or turbidity.
4. There shall be no discharge of materials including radionuclides, in concentrations or combinations which are toxic or which produce undesirable physiological responses in humans, fish, and other wildlife, and plants.
5. There shall be no discharge of substances and conditions or combinations thereof in concentrations that produce undesirable aquatic life.
6. The permittee shall maintain the outfall in such a manner that there is no erosion or other significant effects to the beach or area surrounding the outfall.

## **VII. RECEIVING WATER SPECIAL STANDARDS**

### **1. Thermal Policy**

As per 12 V.I.R.&Regs. §186-5 (2004), the permittee shall abide by the following regulations:

- i.) Fish and other aquatic life shall be protected from thermal blocks, providing for a minimum of 75 percent stream or estuarine cross-section and/or volumetric passageway, including a minimum of one half of the surface as measured from water edge to water edge at any stage of tide.
- ii.) In non-passageway the surface water temperature shall not exceed 32°C.
- iii.) No heat may be added except in designated mixing zones which would cause temperatures to exceed 32°C., or which would cause the monthly mean of the maximum daily temperature at any site, prior to the addition of any heat, to be exceeded by more than 1.0°C.
- iv.) No discharge or combination of discharges shall be injurious to aquatic life (including threatened and endangered species listed pursuant to section 4 of the Federal Endangered Species Act) or the culture or propagation of a balanced indigenous population thereof.
- v.) Rate of temperature change outside the mixing zone shall not be more than 0.5°C per hour nor to exceed 3.0°C in any 24-hour period except when natural phenomena cause these limits to be exceeded.
- vi.) Unless specific conditions, such as spawning ground, migratory routes, or other sections of conditions from these regulations are applicable, the mixing zone should be defined by a sphere with a specified point as the center (not necessarily the outfall but limited to one point for each installation) and a radius equal to the square root of the volume of discharge (A)



expressed as millions of gallons per day, times 200 feet; and in no case exceed 3/8 mile. The formula is:

$$\text{Radius (mixing zone)} = (\sqrt{A}) * 200 \text{ feet} \leq 3/8 \text{ mile}$$

The proposed permit's average daily effluent flow is 36.16 MGD, and therefore the appropriate mixing zone radius shall be **1203 feet (367 meters)**.

## **2. Re-opener Condition**

This special condition allows the permit to be re-opened if it becomes necessary to restrict the mixing zone further to allow for changes in passageways, spawning, or similar environmental factors.

## **VIII. Public Notice**

Public Notice Information is required by (12V.I.R.&Regs. §184-71(2007)). Public Comment will be accepted on the proposed permit after Departmental review for a period of thirty (30) days beginning on the date of the first public notice. All pertinent information is on file and may be inspected and copied by contacting the Department of Planning and Natural Resources – Division of Environmental Protection Office, 45 Mars Hill, Frederiksted, VI 00840, Telephone No. (340) 773-1082.

All written comments submitted during the comment period shall be retained by the Commissioner and considered in the formulation of his final determination with respect to the application. The period for written comment may be extended at the discretion of the Commissioner. A request or petition for public hearing pursuant to 12V.I.R.&Regs. §184-81(2007) may be made during this public comment period.



## **CALCULATIONS SECTION**

### **Table A.I**

Production Data and Calculation of Process Factor/Size Factor for processes affected by BPT, BAT & BCT TBELs

### **Table A.II**

Controlling Effluent Limitations (BPT, BAT, BCT)

### **Table A.III**

Other BAT Limits from 40CFR §419.23(c)(1)(i) applicable to Phenolic Compounds, Total Chromium, & Hexavalent Chromium

### **Table B.I**

Production Data and Calculation of Process Factor/Size Factor for processes affected by NSPS TBELs

### **Table B.II**

Controlling Effluent Limitations (NSPS)

### **Table C.I**

Final Effluent Limitations for Pre-Phase II and Post-Phase II Conditions



PRODUCTION DATA - TABLE A.I						
Calculation of Unit Process Configuration Factor for BPT, BAT & BCT Limitations						
EPA PROCESS NO.	EPA PROCESS NAME	HOVENSA PROCESS ID	PROCESS RATE <sup>1</sup> (1,000 Bbl/d)	WEIGHTING FACTOR <sup>2</sup>	PROCESS RATE / FEEDSTOCK RATE	UNIT PROCESS CONFIGURATION FACTOR
	CRUDE PROCESSES		1,232.30			
3	Vacuum Crude Distillation	#1 Vac #2 Vac #3 Vac VacSum	37.5 88.9 84.1 210.6	1	0.41	0.41
2	Crude Desalting	#2 CDU-D #3 CDU-D #5 CDU-D #6 CDU-D CDU Sum	108.3 34 183.3 185.2 510.9	1	1.00	1
1	Atmospheric Crude Distillation	#2A-CDU #3A-CDU #5A-CDU #6A-CDU A-CDU Sum	108.3 34 183.3 185.2 510.9	1	1.00	1
	CRACKING AND COKING PROCESSES		112			
4	Visbreaking	#1 VIS #2 VIS VIS Sum	0 36.9 36.9	6	0.07	0.43
11	Hydroprocessing (For April 2005, 59.4% of total production was hydrotreating of feedstock - see Executive Summary)	#2 DDU #4 DDU #6DDU DDU Sum	21.9 28.1 25.1 75.1	6	0.15	0.88
6	Fluid Catalytic Cracking	FCCU	SEE TABLE I.B			
15	Delayed Coking	DCU	SEE TABLE I.B			
	REFORMING AND ALKYLATION PROCESSES		106.2			
8	Sulfuric Acid Alkylation	ALKY	17			
12	Catalytic Reforming	#2 PLAT #3 PLAT #4 PLAT PLAT Sum	17.9 44.1 27.2 89.2			
	FEEDSTOCK RATE (1,000 Bbl/d)*		510.90		TOTAL	3.73

<sup>1</sup> Maximum month for CDU feedstock rate was April 2005

<sup>2</sup> Based on the table in 40 CFR §419.42(b)(3)

#### Calculation of Process Factor

Based on the Unit Process Configuration Factor of 3.73 and the tables in 40 CFR §419.22(b)(2), 40 CFR §419.23(b)(2), & 40 CFR §419.24(b)(2),

PROCESS CONFIGURATION FACTOR	PROCESS FACTOR
3.4 - 4.49	0.74

#### Calculation of Size Factor

Based on the tables in 40 CFR §419.22(b)(1), 40 CFR §419.23(b)(1), & 40 CFR §419.24(b)(1),

1,000 bbl of feedstock per stream day	SIZE FACTOR
150.0 or greater	1.41



# **EFFLUENT LIMITATIONS (BPT,BAT,BCT) - TABLE A.II**

Calculation of Effluent Limits by BPT, BAT, BCT - 40 CFR §419.22 through §419.24

**Calculation Formula:** Effluent Limitation = [Effluent Limitation Guideline (ELG)] × [Feedstock Rate] × [Process Factor] × [Size Factor]

Effluent Limitation = [Effluent Limitation Guideline (ELG)] × [510.9] × [0.74] × [1.41]

POLLUTANT	TYPE OF EFFLUENT LIMITATION <sup>(1)</sup>	DAILY MAXIMUM (lbs/1,000 Bbl of Feedstock)	MONTHLY AVERAGE (lbs/1,000 Bbl of Feedstock)	SIZE FACTOR	PROCESS FACTOR	FEEDSTOCK RATE (1,000 Bbl of Feedstock)	EFFLUENT LIMITATIONS BY BPT, BAT & BCT		OTHER BAT EFFLUENT LIMITATIONS <sup>(2)</sup>		CONTROLLING EFFLUENT LIMITATIONS	
							DAILY MAXIMUM (lbs/day)	MONTHLY AVERAGE (lbs/day)	DAILY MAXIMUM (lbs/day)	MONTHLY AVERAGE (lbs/day)	DAILY MAXIMUM (lbs/day)	MONTHLY AVERAGE (lbs/day)
BOD <sub>5</sub>	BPT, BCT	9.9	5.50	1.41	0.74	510.9	5277.42	2931.90			5277.0	2932.0
TSS	BPT, BCT	6.9	4.4	1.41	0.74	510.9	3678.20	2345.52			3678.0	2346.0
TOC <sup>(3)</sup>	BPT, BAT	21.78	12.1	1.41	0.74	510.9	11610.33	6450.18			11610.0	6450.0
Oil and Grease	BPT, BCT	3	1.6	1.41	0.74	510.9	1599.22	852.92			1599.0	852.9
Phenolic Compounds	BPT	0.074	0.036	1.41	0.74	510.9	39.45	19.19	46.50	11.13	39.45	11.13
Ammonia as N	BPT, BAT	6.6	3	1.41	0.74	510.9	3518.28	1599.22			3518.0	1599.0
Sulfide	BPT, BAT	0.065	0.029	1.41	0.74	510.9	34.65	15.46			34.65	15.46
Total Chromium	BPT	0.15	0.088	1.41	0.74	510.9	79.96	46.91	38.25	13.45	38.25	13.45
Hexavalent Chromium	BPT	0.012	0.0056	1.41	0.74	510.9	6.40	2.99	2.45	1.08	2.45	1.08
pH	BPT, BCT	6.0 - 9.0 <sup>(4)</sup>	6.0 - 9.0 <sup>(4)</sup>				6.0 - 9.0 <sup>(4)</sup>	6.0 - 9.0 <sup>(4)</sup>			6.0 - 9.0 <sup>(4)</sup>	6.0 - 9.0 <sup>(4)</sup>

<sup>1</sup> Based on 40 CFR §419.22 (a), §419.23 (a), and §419.24 (a).

<sup>2</sup> TOC monitored in lieu of COD since chloride > 1,000 mg/L. Ratio of TOC to BOD5 is assumed to be 2.2. See 40 CFR §419.13 (d).

<sup>3</sup> Based on 40 CFR §419.23 (c)(1)(i) - see Table A.III

<sup>4</sup> pH is not affected by feedstock rate, process factor, or size factor and shall be measured in Standard Units (s.u.)



# OTHER BAT LIMITS FROM 40CFR§419.23(c)(1)(i) - TABLE A.III

Calculation of Phenolic Compounds, Total Chromium & Hexavalent Chromium Limits via BAT

POLLUTANT	PROCESSES INCLUDED	FEEDSTOCK RATE (1,000 Bbl of Feedstock)	DAILY MAXIMUM (lbs/1,000 Bbl of Feedstock)	MONTHLY AVERAGE (lbs/1,000 Bbl of Feedstock)	EFFLUENT LIMITATIONS	
					DAILY MAXIMUM (lbs/day)	MONTHLY AVERAGE (lbs/day)
Phenolic Compounds	CRUDE PROCESSES	1232.3	0.013	0.003	16.02	3.70
	CRACKING AND COKING PROCESSES	112	0.147	0.036	16.46	4.03
	REFORMING AND ALKYLATION PROCESSES	106.2	0.132	0.032	14.02	3.40
					<b>46.50</b>	<b>11.13</b>
Total Chromium	CRUDE PROCESSES	1232.3	0.011	0.004	13.56	4.93
	CRACKING AND COKING PROCESSES	112	0.119	0.041	13.33	4.59
	REFORMING AND ALKYLATION PROCESSES	106.2	0.107	0.037	11.36	3.93
					<b>38.25</b>	<b>13.45</b>
Hexavalent Chromium	CRUDE PROCESSES	1232.3	0.0007	0.0003	0.86	0.37
	CRACKING AND COKING PROCESSES	112	0.0076	0.0034	0.85	0.38
	REFORMING AND ALKYLATION PROCESSES	106.2	0.0069	0.0031	0.73	0.33
					<b>2.45</b>	<b>1.08</b>



### PRODUCTION DATA - TABLE B.I

Calculation of Unit Process Configuration Factor for NSPS Limitations

EPA PROCESS NO.	EPA PROCESS NAME	HOVENSA PROCESS ID	PROCESS RATE <sup>1</sup> (1,000 Bbl/d)	WEIGHTING FACTOR <sup>2</sup>	PROCESS RATE / FEEDSTOCK RATE	UNIT PROCESS CONFIGURATION FACTOR
	<b>CRACKING AND COKING PROCESSES</b>		<b>203.5</b>			
6	Fluid Catalytic Cracking	FCCU	144.4	6	0.71	4.26
15	Delayed Coking	DCU	59.0	6	0.29	1.74
	<b>FEEDSTOCK RATE (1,000 Bbl/d)</b>		<b>203.5</b>		<b>TOTAL</b>	<b>6.00</b>

<sup>1</sup> Maximum month for CDU feedstock rate was April 2005

<sup>2</sup> Based on the table in 40 CFR §419.42(b)(3)

#### Calculation of Process Factor

Based on the Unit Process Configuration Factor of 6.00  
and the table in 40 CFR §419.26(b)(2),

PROCESS CONFIGURATION FACTOR	PROCESS FACTOR
6.0 - 6.49	1.09

#### Calculation of Size Factor

Based on the table in 40 CFR §419.26(b)(1),

1,000 bbl of feedstock per stream day	SIZE FACTOR
150.0 or greater	1.41



## EFFLUENT LIMITATIONS (NSPS) - TABLE B.II

Calculation of Effluent Limits by NSPS - 40 CFR §419.26

**Calculation Formula:** Effluent Limitation = [Effluent Limitation Guideline (ELG)] x [Feedstock Rate] x [Process Factor] x [Size Factor]

Effluent Limitation = [Effluent Limitation Guideline (ELG)] x [203.5] x [1.09] x [1.41]

POLLUTANT	TYPE OF EFFLUENT LIMITATION <sup>(1)</sup>	DAILY MAXIMUM (lbs/1,000 Bbl of Feedstock)	MONTHLY AVERAGE (lbs/1,000 Bbl of Feedstock)	SIZE FACTOR	PROCESS FACTOR	FEEDSTOCK RATE (1,000 Bbl of Feedstock)	EFFLUENT LIMITATIONS BY NSPS		CONTROLLING EFFLUENT LIMITATIONS	
							DAILY MAXIMUM (lbs/day)	MONTHLY AVERAGE (lbs/day)	DAILY MAXIMUM (lbs/day)	MONTHLY AVERAGE (lbs/day)
BOD <sub>5</sub>	NSPS	5.8	3.1	1.41	1.09	203.5	1814.00	969.55	<b>1814.0</b>	<b>970.0</b>
TSS	NSPS	4.0	2.5	1.41	1.09	203.5	1251.04	781.90	<b>1251.0</b>	<b>781.9</b>
TOC <sup>(2)</sup>	NSPS	12.76	6.82	1.41	1.09	203.5	3990.81	2133.02	<b>3991.0</b>	<b>2133.0</b>
Oil and Grease	NSPS	1.7	0.93	1.41	1.09	203.5	531.69	290.87	<b>531.7</b>	<b>290.1</b>
Phenolic Compounds	NSPS	0.042	0.02	1.41	1.09	203.5	13.14	6.26	<b>13.14</b>	<b>6.26</b>
Ammonia as N	NSPS	6.6	3.0	1.41	1.09	203.5	2064.21	938.28	<b>2064.0</b>	<b>938.3</b>
Sulfide	NSPS	0.037	0.017	1.41	1.09	203.5	11.57	5.32	<b>11.57</b>	<b>5.32</b>
Total Chromium	NSPS	0.084	0.049	1.41	1.09	203.5	26.27	15.33	<b>26.27</b>	<b>15.33</b>
Hexavalent Chromium	NSPS	0.0072	0.0032	1.41	1.09	203.5	2.25	1.00	<b>2.25</b>	<b>1.00</b>
pH	NSPS	6.0 - 9.0 <sup>(3)</sup>	6.0 - 9.0 <sup>(3)</sup>				6.0 - 9.0 <sup>(3)</sup>	6.0 - 9.0 <sup>(3)</sup>	<b>6.0 - 9.0 <sup>(3)</sup></b>	<b>6.0 - 9.0 <sup>(3)</sup></b>

<sup>1</sup> Based on 40 CFR §419.26(a)

<sup>2</sup> TOC monitored in lieu of COD since chloride > 1,000 mg/L. Ratio of TOC to BOD<sub>5</sub> is assumed to be 2.2. See 40 CFR §419.13 (d)

<sup>3</sup> pH is not affected by feedstock rate, process factor, or size factor and shall be measured in Standard Units (s.u.)

## TOTAL TBEL EFFLUENT LIMITATIONS - TABLE C.I

Summary of Effluent Limits - 40 CFR §419

POLLUTANT	EFFLUENT LIMITATIONS PRE-PHASE II OUTFALL 010		EFFLUENT LIMITATIONS PRE-PHASE II OUTFALL 001		EFFLUENT LIMITATIONS POST-PHASE II OUTFALL 401	
	DAILY MAXIMUM (lbs/day)	MONTHLY AVERAGE (lbs/day)	DAILY MAXIMUM (lbs/day)	MONTHLY AVERAGE (lbs/day)	DAILY MAXIMUM (lbs/day)	MONTHLY AVERAGE (lbs/day)
BOD <sub>5</sub>	1814.0	970.0	7091.00	3902.00	7091.0	3902.0
TSS	1251.0	781.9	4929.00	3127.90	4929.0	3127.9
TOC <sup>(2)</sup>	3991.0	2133.0	15601.00	8583.00	15601.0	8583.0
Oil and Grease	531.7	290.1	2130.70	1143.00	2130.7	1143.0
Phenolic Compounds	13.14	6.26	52.59	17.39	52.59	17.39
Ammonia as N	2064.0	938.3	5582.00	2537.30	5582.0	2537.3
Sulfide	11.57	5.32	46.22	20.78	46.22	20.78
Total Chromium	26.27	15.33	64.52	28.78	64.52	28.78
Hexavalent Chromium	2.25	1.00	4.70	2.08	4.70	2.08
pH	6.0 - 9.0 <sup>(3)</sup>	6.0 - 9.0 <sup>(3)</sup>	6.0 - 9.0 <sup>(3)</sup>	6.0 - 9.0 <sup>(3)</sup>	6.0 - 9.0 <sup>(3)</sup>	6.0 - 9.0 <sup>(3)</sup>

<sup>1</sup> Based on 40 CFR §419.26(a)

<sup>2</sup> TOC monitored in lieu of COD since chloride > 1,000 mg/L.  
Ratio of TOC to BOD<sub>5</sub> is assumed to be 2.2. See 40 CFR §419.13 (d)

<sup>3</sup> pH shall be measured in Standard Units (s.u.)

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## **SPECIAL CONDITIONS**

### **I. Commencement of Hovensa Wastewater Treatment Plant (HWWTP)**

The Hovensa Wastewater Treatment Plant (HWWTP) shall not be fully operational until after this permit cycle's issuance. Therefore, the following shall provide certain guidelines for the commencement of the HWWTP:

- A. HOVENSA, LLC shall notify DPNR, in writing, when they have established a commencement date for the HWWTP, and subsequently a written notification when it goes online.
- B. Until the notification that the HWWTP has gone online, the limitations previously stated in the **Pre-Phase II** section shall apply.
- C. HOVENSA, LLC shall notify DPNR, in writing, if the HWWTP will interfere with or cause the facility's process to exceed these permit limitations during the start-up phase of the HWWTP. Pursuant to 40 CFR §122.29(d)(4)(1983), HOVENSA, LLC shall be granted a period of time to allow for stabilization during the start-up phase. HOVENSA, LLC shall, within the shortest feasible time (not to exceed 90 days), meet all permit conditions and begin operation within technology-based effluent limits.
- D. 60 days after start-up of the HWWTP, it shall be considered part of the facility process, and be subjected to all applicable rules and regulations set forth in the **Post-Phase II** section of this permit.

### **II. Reduced Monitoring Schedule**

After review of USEPA Interim Guidance For Performance-Based Reduction of NPDES Permit Monitoring Frequencies (1996), the monitoring schedule has been reduced accordingly for all applicable Outfalls at the request of the Permittee. DPNR reserves the right to reinstate previous monitoring requirements if it believes there is Reasonable Potential for Harm (RPH) to the environment due to this modification.

### **III. Whole Effluent Toxicity (WET) Testing**

#### **A. General Comments**

The provisions of this section apply to **Outfall 001**.

There may be pollutants present in the effluent which have the reasonable potential to cause, or contribute to, an excursion above the narrative criterion within the applicable Territorial Water Quality Standards in violation of Section 101(a)(3) of the Clean Water Act. In addition, the permitting authority is required under 40 CFR §122.44(d)(1) (1983) to include conditions as necessary to achieve the Territories' Water Quality Standards as established under Section 303 of the Clean Water Act. The Territory has established narrative criteria, which, in part, state that:

"... All surface waters shall meet generally accepted aesthetic qualification and shall be



capable of supporting diversified aquatic life, These waters shall be free of substances attributable to municipal, industrial, or other discharge or wastes as follows: (d) Materials, including radionuclides, in concentrations or combinations which are toxic...."

## B. WET Testing Requirements

Whole effluent biomonitoring is the most direct measure of potential toxicity, which incorporates both the effects of synergism of effluent components and receiving stream water quality characteristics. Biomonitoring of the effluent is, therefore, required as a condition of this permit to assess potential toxicity.

### 1. Testing and Reporting Requirements

The permit establishes the following testing and reporting requirements:

TOXICITY TESTS	SPECIES	FREQUENCY
Chronic static renewal 7-day survival, growth, and reproduction test [Method 1007.0] <sup>1</sup>	Mysidopsis bahia (Mysid shrimp)	1/year
Chronic static renewal 7-day larval survival and growth test [Method 1006.0] <sup>1</sup>	Menidia beryllina (silverside minnow)	1/year

<sup>1</sup>Toxicity tests shall be performed in accordance with 40 CFR §136 and protocols described in the Short-term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Marine and Estuarine Organisms, Third Edition (EPA-600-4-91-003), October 2002, or the most recent edition of this publication, if such edition is available.

The biomonitoring frequency has been established to provide data representative of the facility's discharge and to provide data representative of the toxic potential of the facility's discharge in accordance with regulations promulgated at 40 CFR §122.48 (1983).

The NOEC (No Observed Effect Concentration) is defined as the greatest effluent dilution which does not result in lethality that is statistically different from the control (0% effluent) at the 95% confidence level.

The LOEC (Lowest Observed Effect Concentration) is defined as the lowest concentration of toxicant to which organisms are exposed in a lifecycle or partial lifecycle test that causes adverse effects on the test organisms that is statistically different from the control (0% effluent) at the 95% confidence level.

The IC25 (Inhibition Concentration, 25%) is defined as the effluent concentration at which growth or reproduction is reduced by 25% from that of the controls.

Results of all dilutions as well as the associated chemical monitoring of pH, temperature, hardness, dissolved oxygen, conductivity, and salinity shall be documented in a full report according to the test method publication mentioned in the previous paragraph. This full report shall be submitted to DEP within sixty (60) days after completion of the toxicity test. Additionally, the full report is to be retained for three (3) years following the provisions of Part II.C.10.b of this permit. All endpoints shall be considered endpoints of



growth.

Test results shall be expressed as an NOEC, LOEC and IC25 for each test endpoint. Where a chronic toxicity testing methodology yields NOEC/LOEC/ IC25's from more than one test endpoint, the most sensitive endpoint shall be used to evaluate toxicity.

## 2. Dilution Series

The permit requires six (6) dilutions in addition to the control (0% effluent) to be used in the toxicity tests. These effluent concentrations shall be 100%, 40%, 16%, 8%, 6.4%, and 2.56%.

## 3. Significant Toxicity

The requirements of this section apply only when a toxicity test demonstrates significant toxicity at the low-flow dilution. Significant toxicity will be demonstrated if there are any toxicity test results with an endpoint expressed as a NOEC less than eight percent (8%).

- a. The Permittee shall conduct additional tests for any species that demonstrates significant toxicity at the low-flow dilution as defined above. The additional tests shall be conducted monthly during the next two (2) consecutive months. The Permittee shall not substitute either of the two (2) additional tests in lieu of routine annual toxicity testing. The full report shall be prepared for each test required by this section in accordance with procedures outlined in Item 5 of this section.
- b. Upon completion of the additional two (2) monthly tests, the Permittee shall evaluate the results for the following criteria:
  - If the two consecutive monthly test results for the most sensitive NOEC endpoint are both greater than or equal to eight percent (8%), then the Permittee may return to annual testing; **or**
  - If either of the two consecutive monthly test results for the most sensitive NOEC endpoint is less than eight percent (8%), then the Permittee shall continue to test that species monthly until two (2) consecutive monthly test results for the most sensitive NOEC endpoint are greater than eight percent (8%).

The Permittee may request a waiver of the routine annual toxicity testing if continual monthly testing is required based on the requirements of this provision.

## 4. Required Toxicity Testing Conditions

### a. Test Acceptance

The Permittee shall repeat a test, including the control and all effluent dilutions, if the procedures and quality assurance requirements defined in the test methods or in this permit are not satisfied, including the following additional criteria:

- i. The toxicity test control (0% effluent) must have survival equal to or greater than 80%.



- ii. The mean dry weight of surviving Mysid shrimp at the end of the seven (7) days in the control (0% effluent) must be 0.20 mg per Mysid or greater. Should the mean dry weight in the control be less than 0.20 mg per Mysid, the toxicity test including the control and all effluent dilutions shall be repeated.
- iii. The mean dry weight of surviving unpreserved Inland Silverside minnow larvae at the end of the seven (7) days in the control (0% effluent) must be 0.50 mg per larva or greater. The mean dry weight of surviving preserved Inland Silverside minnow larvae at the end of the seven (7) days in the control (0% effluent) must be 0.43 mg per larva or greater.
- iv. The percent coefficient of variation between replicates shall be 40% or less in the control (0% effluent) for the growth and survival endpoints in the Mysid shrimp test; and the growth and survival endpoints of the Inland Silverside minnow test.
- v. The percent coefficient of variation between replicates shall be 40% or less in the critical dilution unless significant lethal or non-lethal effects are exhibited for the growth and survival endpoints in the Mysid shrimp test; and the growth and survival endpoints of the Inland Silverside minnow test.

Test failure may not be construed or reported as invalid due to a coefficient of variation value of greater than 40%. A repeat test shall be conducted within the required reporting period of any test determined to be invalid. The Permittee is encouraged to conduct the test early enough in the year to allow for any repeat testing within the year.

**b. Statistical Interpretation**

For the Mysid shrimp and the Inland Silverside minnow larval survival and growth test, the statistical analyses used to determine if there is a significant difference between the control and the low-flow dilution shall be in accordance with the methods for determining the No Observed Effect Concentration (NOEC), Lowest Observed Effect Concentration (LOEC) and Inhibition Concentration 25% (IC25) as described in EPA/600/4-91-003 or the most recent update thereof.

**c. Dilution Water**

Dilution water shall be supplied by the Permittee and be composed of a grab sample of ambient (intake) waters collected immediately prior to the test, but never more than 96 hours before the test begins. The sample shall be chilled to 6°C during or immediately following collection and maintained at that temperature prior to use in the test. Receiving waters containing debris or indigenous organisms that may be confused with or attack the test organisms should be filtered through a sieve having 60 µm mesh openings prior to use.

A given batch of dilution water should not be used for more than 14 days following preparation because of the possible build up of bacterial, fungal, or algal slime growth and the problems associated with it. The container should be kept covered and the contents should be protected from light.

If ambient waters show lethal or sub-lethal effects, the subsequent tests and all



testing shall be run with a laboratory control replicate in addition to the ambient intake dilution water.

Dilution water used in the toxicity tests will be prepared as described in EPA/600/4-91-003 or the most recent update thereof.

**d. Samples and Composites**

The Permittee shall collect a minimum of three (3) 24-hour composite samples from the outfall(s) listed at Section III.A above. A 24-hour composite sample consists of a minimum of 24 effluent portions collected at equal time intervals representative of a 24-hour operating day.

The Permittee shall collect second and third 24-hour composite samples for use during 24-hour renewals of each dilution concentration for each test. The Permittee must collect the 24-hour composite samples such that the effluent samples are representative of any periodic episode of chlorination, biocide usage or other potentially toxic substance discharged on an intermittent basis.

The first 24-hour composite sample is used for test day one and two, the second 24-hour composite sample is used for test day three and four and the third 24-hour composite sample is used for test day five, six and seven. All sample holding times must be in compliance with comments to holding times in 40 CFR §136 (2007), and as recommended in EP A/600/4-91-003, or the most recent update thereof.

If the flow from the outfall(s) being tested ceases during the collection of effluent samples the requirements for the minimum number of effluent samples, the minimum number of effluent portions and the sample holding time are waived during that sampling period. However, the Permittee must collect an effluent composite sample volume during the period of discharge that is sufficient to complete the required toxicity tests with daily renewal of effluent. When possible, the effluent samples used for the toxicity tests shall be collected on separate days if the discharge occurs over multiple days. The effluent composite sample collection duration and the static renewal protocol associated with the abbreviated sample collection must be documented in the full report required in Item 5 of this section.

**5. Reporting**

The Permittee shall prepare a full report of the results of all tests conducted pursuant to this section in accordance with the Report Preparation Section of EPA/600/4-91-003 or the most current publication, for every valid or invalid toxicity test initiated whether carried to completion or not. Copies of each completed report shall be submitted to DPNR within sixty (60) days of test completion.

**6. Whole Effluent Toxicity Limits**

At the end of the year, DPNR-DEP, EPA and the Permittee will evaluate the data collected against the EPA recommended criteria for effluent toxicity.

Upon review of the data against Territory and EPA toxicity policy, the permit may be re-opened to establish Whole Effluent Toxicity permit limits and monitoring frequency. These limits may be determined by the procedure described in Technical



Support Document for Water Quality-Based Toxics Control (EPA 505/2-90-001), or the most current procedure therein. Additionally, criteria for the establishment of a critical dilution and mixing zone will be defined at the time of permit re-opening.

Unless otherwise modified, the toxicity tests will be conducted on a once per calendar year basis for the duration of this permit.

#### 7. Toxicity Reduction Evaluation (TRE)

- a. If the Permittee cannot meet the effluent limits for toxicity or if the toxicity tests demonstrate continual significant toxic effects at the low-flow dilution (as determined in Sections 1-6 above) for a twelve (12) month period, the Permittee shall submit a Toxicity Reduction Evaluation (TRE) Action Plan and Schedule for conducting a TRE. The TRE Action Plan shall specify the approach and methodology to be used in performing the TRE. A TRE is an investigation intended to determine those actions necessary to achieve compliance with water quality-based effluent limits by reducing an effluent's toxicity to an acceptable level. A TRE is defined as a step-wise process which combines toxicity testing and analyses of the physical and chemical characteristics of a toxic effluent to identify the constituents causing effluent toxicity and/or treatment methods which will reduce the effluent toxicity. The TRE Action Plan shall lead to the successful elimination of effluent toxicity at the critical dilution and include the following:
  - i. Specific Activities - The plan shall detail the specific approach the Permittee intends to utilize in conducting the TRE. The approach may include toxicity characterizations, identifications and confirmation activities, source evaluation, treatability studies, or alternative approaches. When the Permittee conducts Toxicity Characterization Procedures, the Permittee shall perform multiple characterizations and follow the procedure specified in the documents "Methods for Aquatic Toxicity Identification Evaluations: Phase I Toxicity Characterization Procedures" (EPA600/6-91/003) and "Toxicity Identification Evaluation: Characterization of Chronically Toxic Effluents, Phase I" (EPA 600/6-91/005F) or alternate procedures. When the Permittee conducts Toxicity Identification Evaluations and Confirmations, the Permittee shall perform multiple identifications and follow the methods specified in the documents "Methods for Aquatic Toxicity Identification Evaluations, Phase II Toxicity Identification Procedures for Samples Exhibiting Acute and Chronic Toxicity" (EPA/600/R-92/080) and "Methods for Aquatic Toxicity Identification Evaluations, Phase III Toxicity Confirmation Procedures for Samples Exhibiting Acute and Chronic Toxicity" (EPA/600/R-92/081), as appropriate;
  - ii. Sampling Plan (e.g., locations, methods, holding times, chain of custody, preservation, etc.) - The effluent sample volume collected for all tests shall be adequate to perform the toxicity test, toxicity characterization, identification and confirmation procedures and conduct chemical specific analyses when a probable toxicant has been identified. Where the Permittee has identified or suspects specific pollutant(s) and/or source(s) of effluent toxicity, the Permittee shall conduct, concurrent with toxicity testing, chemical specific analyses for the identified and/or suspected pollutant(s) and/or source(s) of effluent toxicity. Where lethality was demonstrated within 24 hours of test initiation, each 24-hour composite sample shall be analyzed independently. Otherwise the Permittee may substitute a composite sample, comprised of equal portions of the



individual 24-hour composite samples for the chemical specific analysis;

- iii. Quality Assurance Plan (e.g., QA/QC implementation, corrective actions, etc.); and
  - iv. Project Organization (e.g., project staff, project manager, consulting services, etc.).
- b. The Permittee shall initiate the TRE Action Plan within sixty (60) days of plan and schedule submittal. The Permittee shall assume all risks for failure to achieve the required toxicity reduction.
  - c. The Permittee shall submit a quarterly TRE Activities Report with the Discharge Monitoring Report in the months of January, April, July and October containing information on toxicity reduction evaluation activities including:
    - i. Any data and/or substantiating documentation which identifies the pollutant(s) and/or source(s) of effluent toxicity;
    - ii. Any studies/evaluations and results on the treatability of the facility's effluent toxicity; and
    - iii. Any data which identifies effluent toxicity control mechanisms that will reduce effluent toxicity to the level necessary to meet no significant lethality at the critical dilution.
- A copy of the TRE Activities Report shall also be submitted to the DPNR-DEP on or before the last day of the calendar quarter. Extensions for late reporting may be requested in writing from the Department of Planning and Natural Resources - Division of Environmental Protection (DPNR-DEP).
- d. The Permittee shall submit to DPNR-DEP a Final Report on TRE Activities no later than twenty-eight (28) months from confirming lethality in the retests, which provides information pertaining to the specific control mechanism selected that will, when implemented, result in reduction of effluent toxicity to no significant lethality at the critical dilution. The report will also provide a specific corrective action schedule for implementing the selected control mechanism.

A copy of the Final Report on TRE Activities shall also be submitted to the EPA Region II office.

#### **IV. Boiler Chemical Cleaning & Maintenance Wastes**

Boiler Maintenance and Cleaning Chemicals use and disposal shall be in accordance with the manufacturer's specifications as outlined in the information and Material Safety Data Sheets (MSDS) submitted with the BMP plan. If the Permittee needs to use a chemical substantially different with respect to chemical composition, disposal method, environmental impact or toxicity, etc., the Permittee shall provide DEP with written information regarding usage, and degradation of the chemicals through the wastewater treatment systems thirty (30) days in advance.



**V. Chromatic Coolants**

There shall be no discharge of chromatic coolants.

**VI. Pollution Prevention Practices**

**a. Facility Integrated Contingency Plan (FICP):**

The Facility Integrated Contingency Plan (FICP), which includes the SWPPP, BMP plan, FRP, and SPCC plan, shall be maintained and updated at the facility and available upon request.

**b. Hydro-Hydrostatic Testing Water Discharge:**

Provisions of this section apply to any pressurized or non-pressurized Hydrostatic Testing Water (i.e. tank, pump etc.).

The Permittee shall have a Standard Operating Procedure (SOP) for the testing and disposal of Hydrostatic Testing Water on site.

The Permittee shall notify the Department of Environmental Protection at least 24 hours prior to discharge of hydrostatic testing water through any TPDES outfall. A representative grab sample of the hydrostatic testing waters shall be taken for each tank prior to discharge and analyzed for pH, Total Organic Carbon (TOC), and Oil & Grease (O&G). If the test analyses comply with limits established for the discharge of non-contact stormwater found in the Stormwater Discharge Limits and Requirements Section (Section V), and fall in the VI Water Quality Standards pH range restriction of 7.0 – 8.3 S.U., the discharge of this hydrostatic testing water may be through one of the TPDES permitted outfalls.

If the representative grab sample fails to meet the constituent limits for storm water discharges, the hydrostatic testing water shall not be discharged through a stormwater outfall. Treatment by oil/water separators, API, WEMCO's and NESHAP strippers (or equivalent) shall be used and disposal methods shall be outlined in the SOP. Discharge of hydrostatic testing waters that do not comply with stormwater parameters does not constitute adequate treatment.

Additionally, conditions defined by 12V.I.R.&Regs. §186-1(a) (2004), General Water Quality Criteria shall be met. Specifically, there may be no discharge of water containing any visible oil sheen.

The discharge flow rate shall be supervised and controlled so that it does not scar the outfall or receiving water area or violate any general or specific Virgin Islands Water Quality Rules and Regulations as stated in 12V.I.R.&Regs. §186 (2004). If the outfall discharges onto an area not owned by the Permittee, written permission must be secured from the owner as part of the SOP.

**VII. Excess Stormwater Only**

**a. Operational Management Planning:**



General Permit Condition 13 of Part II is limited to "essential maintenance" operations and does not in and of itself allow for Advanced Wastewater Treatment Plant (AWTP) upset flow and Fluid Catalytic Cracking (FCC) storm water tank diversions. Both however are waste streams which affect efficient operation (specified in Part II, Section 13) and to that extent, the following expanded definition is incorporated:

Pursuant to Part II, Section 13 of this permit, Efficient operation shall, if necessary for essential strategic waste stream(s) management and in conjunction with a DPNR approved SOP, include the temporary diversion of wastewater or process-related stormwater from the Advanced Wastewater Treatment Plant to the East Refinery Wastewater Treatment System, provided that diversion is restricted to the approved path of flow(s) in Figure 2-2D submitted on May 9, 2005. This section shall no longer be in effect sixty (60) days after first discharge from Outfall 401.

**b. Standard Operating Procedures (SOP):**

The SOP shall be approved by DPNR and is subject to review every two years.

**VIII. Total Suspended Solids Reporting Only**

**a. Internal Monitoring Point (IMP) Sampling and Reporting:**

This special condition is attributed to concern about high total suspended solids (TSS) readings in HOVENSA's discharge water at Outfall 001. HOVENSA attributes the high TSS values to the addition of brine discharge rather than their secondary or better (technology based) treatment processes [i.e. advanced wastewater treatment plant (AWTP) and Lagoons 1,2&3]. Pursuant to 40 CFR 122.45(h)(1)(1983), the monitoring point for TSS at Outfall 001 may be changed from to several internal monitoring points which would be summed and reported as one value, to avoid technology based permit violations. Since the TSS (technology based) permit limitations are also reported as mass (i.e., pounds per day), the sampling point should in fact be at any point just after the treatment process and prior to mixing with the brine effluent.

**b. Default Monitoring Point Sampling, Reporting and Enforcement:**

Additionally, HOVENSA shall continue to monitor for TSS at Outfall 001 as its default sampling point and report both internal monitoring point values and default values on discharge monitoring reports (DMRs) Pre-Phase II to DPNR and EPA. As a matter of clarification, only the IMPs would have a numerical permit limit; however, in the event that the TSS cannot be calculated based on flow, due to excessive stormwater, HOVENSA must report the same value of TSS at Outfall 001 as the IMP value. Further, any enforcement action taken for any TSS exceedance would be based on that reported default value and permit limit.

**IX. Redirection of Quench Seawater Only**

**a. Operational Management Planning:**

In order to improve the retention time for wastewater treatment, HOVENSA has



requested that quench seawater flow be removed from the secondary or better treatment processes (i.e. Lagoons 1,2&3) and be redirected to Outfall 001. HOVENSA has demonstrated that the major pollutant, heat differential from quench seawater, can be shown to be negligible through mass balance calculations, resulting in four tenths (4/10) of one percent temperature increase. Further, HOVENSA attributes the brown color of its internal wastewater stream to quench seawater calcium reactions. Both the effectiveness of secondary treatment and overall water quality would be improved by this redirection of flow without exceeding existing permit limits.

**X. Antidegradation**

The Permittee shall abide by the antidegradation policy set forth in 12V.I.R.&Regs. §186-7 (2004).

**XI. Changes in Flow**

The flows of all Outfalls and Inlets shall not exceed the limitations set forth in this permit. No alterations of flow shall be made to the permit without authorization from DPNR and any necessary modifications to the existing permit.

**XII. Water Pollution Control Equipment**

The Permittee shall install, maintain and operate all water pollution control equipment in such manner as to be in compliance with the applicable Rules and Regulations.

**XIII. Chemical Additives**

HOVENSA, LLC shall notify DPNR, in writing, of any chemical additives which could be present in the waste streams, as well as provide DPNR with the MSDS of each additive, and add the chemical additives at the manufacturer's specified rate. This condition is BPJ derived in support of 12V.I.R.&Regs. §186-1 (2004).



## PART II – STANDARD CONDITIONS

### A. MONITORING AND REPORTING REQUIREMENTS

1. Monitoring and records. See Part II.C.10.

2. Discharge Monitoring Reports.

a. See Part II.C.12.d.

b. Monitoring results obtained during the previous month shall be summarized and reported on Discharge Monitoring Report Form (USEPA No. 3320-1), postmarked no later than the 28<sup>th</sup> day of the month following the completed reporting period. The first report is due on Effective Date of the Permit (EDP) +3 months +28 days. Duplicate signed copies of these, and all other reports required herein, shall be submitted to the Regional Administrator of USEPA and Commissioner of DPNR/DEP at the following addresses:

Regional Administrator  
Attn: Permits Admin. Branch  
USEPA Region II  
290 Broadway  
New York, NY 10007-1866

Commissioner  
Dept. of Planning & Natural Resources  
Division of Environmental Protection  
#45 Mars Hill  
Frederiksted, St. Croix 00841

3. Quality Assurance Practices. The Permittee is required to show the validity of all data by requiring its laboratory to adhere to the following minimum quality assurance practices:

- a. Duplicate<sup>1</sup> and spiked<sup>2</sup> samples must be run for each constituent analyzed for permit compliance on 5% of the samples, or at least on one (1) sample per month, whichever is greater. If analysis frequency is less than one (1) sample per month, duplicate and spiked samples must be run for each analysis.
- b. For spiked samples, a known amount of each constituent is to be added to the discharge sample. The amount of constituent added should be approximately the same amount present in the unspiked sample, or must be approximately that stated as maximum or average in the discharge permit.
- c. The data obtained in a. above shall be summarized in an annual report submitted at the end of the fourth quarter of reporting in terms of precision, percent recovery, and the number of duplicate and spiked samples that were ran.
- d. Precision for each parameter shall be calculated by the formula, standard deviation  $s = (\sum D^2 / 2K)^{1/2}$ , where "D" is the difference between duplicate results, and "K" is the number of duplicate pairs used in the calculation.

<sup>1</sup> Duplicate samples are not required for the following parameters: Color, Temperature, and Turbidity.

<sup>2</sup> Spiked samples are not required for the following parameters listed in Table 1 of 40 CFR 136: Acidity, Alkalinity, Bacteriological, Benzidine, Chlorine, Color, Dissolved Oxygen, Hardness, pH, Oil and Grease, Radiological, Residues, Temperature, Turbidity. Procedures for spiking samples and spiked sample requirements for parameters not listed on the above referenced table are available through USEPA's Region II Quality Assurance Coordinator.



- e. Percent recovery for each parameter shall be calculated by the formula  $R = 100 (F - I) / A$ , where "F" is the analytical result of the spiked sample, and "I" is the result before spiking the sample, and "A" is the amount of constituent added to the sample.
  - f. The percent recovery, "R", for each parameter in e. above shall be summarized yearly in terms of mean percent recovery and standard deviation from the mean. The formula is:  $s = [\sum (x_m - \bar{x})^2 / (n - 1)]^{1/2}$ , where "s" is the standard deviation around the mean " $\bar{x}$ ", "x" is an individual recovery value, and "n" is the number of data points which shall be applied.
  - g. The Permittee or his contract laboratory is required to annually analyze an external quality control reference sample for each pollutant. These are available through <http://www.a21a.org/dirsearchnew/nelacptproviders.cfm>.
  - h. The Permittee and/or his contract laboratory is required to maintain records of the specific analytical methods used, including options employed, if any, within a particular method, and of reagent standardization and equipment calibration operations.
  - i. If a contract laboratory is utilized, the Permittee shall submit the name and address of the laboratory and the parameters analyzed at the time it submits its discharge monitoring reports (see Section 2. b. above). Any change in the contract laboratory being used or the parameters analyzed shall be reported prior to or together with the monitoring report covering the period during which the change was made.
4. Twenty-four hour reporting.
- a. The Permittee must report violations of maximum daily discharge limitations in accordance with the reporting requirements set forth in Part II.B.12.f. (Twenty-four 24 hour reporting followed by written submission within five (5) business days).
5. Additional Reporting Requirements. The Permittee shall notify the Commissioner as soon as it knows or has reason to believe:
- a. That any activity has occurred or will occur which would result in the discharge, on a routine or frequent basis, of any toxic pollutant which is not limited in the permit, if that discharge will exceed the highest of the following "notification levels".
    - (1) One hundred micrograms per liter (100µg/l); or
    - (2) Two hundred micrograms per liter (200 µg/l) for acrolein and acrylonitrile; five hundred micrograms per liter (500 ug/l) for 2, 4-dinitrophenol and for 2-methyl-4, 6-dinitrophenol; and one milligram per liter (1 mg/l) for antimony; or
    - (3) Five (5) times the maximum concentration value reported for that pollutant in the permit application; or
    - (4) The notification level, if any, established by the Commissioner in the permit.
  - b. That any activity has occurred or will occur which would result in any discharge, on a non-routine basis or infrequent basis, of a toxic pollutant which is not limited in the permit, if that discharge will exceed the highest of the following "notification levels".

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- (1) Five hundred micrograms per liter (500 µg/l); or
  - (2) One milligram per liter (1mg/l) for antimony; or
  - (3) Ten (10) times the maximum concentration value reported for that pollutant in the permit application; or
  - (4) The notification level, if any, established by the Commissioner in the permit.
6. Dissolved Oxygen (D.O.) Correction: The Permittee is allowed to correct its D.O. results for temperature before reporting it to the DPNR on its monthly DMR Reports. The following equation should be used for the correction calculation:

$$DO_r = 5 + [DO_m - C(5)]$$

$$\text{Where } C = (5/DO_{sat})$$

$DO_r$  = reported D.O. value on DMR

$DO_m$  = effluent D.O. measured

C = Correction Factor (D.O. permit limit/D.O. saturation potential at ambient temperature)

$DO_{sat}$  = saturation potential at ambient temperature (78°F), salinity of 35 ppt, and standard pressure

## B. DEFINITIONS

1. "Average monthly discharge limitation" means the highest allowable average of "daily discharges" over a calendar month, calculated as the sum of all daily discharges measured during a calendar month divided by the number of daily discharges measured during that month.
2. "Average weekly discharge limitations" means the highest allowable average of "daily discharges" over a calendar week, calculated as the sum of all daily discharges measured during a calendar week divided by the number of daily discharges measured during that week.
3. "Bypass" means the intentional diversion of wastes from any portion of a treatment facility.
4. "Composite" means a combination of individual (or continuously taken) samples obtained at regular intervals over the entire discharge day. The volume of each sample shall be proportional to the discharge flow rate. For a continuous discharge, a minimum of twenty-four (24) individual grab samples (at hourly intervals) shall be collected and combined to constitute a 24-hour composite sample. For intermittent discharges of more minute intervals, flow-proportioned and time-proportioned composite samples may be taken in order to provide valid results.
5. "Daily discharge" means the discharge of a pollutant measured during a calendar day or any 24-hour period that reasonably represents the calendar day for purposes of sampling. For pollutants with limitations expressed in units of mass, the "daily discharge" is calculated as the total mass of the pollutant discharge over the day. For pollutants with limitations expressed in other units of measurement, the "daily discharge" is calculated as the average measurement of pollutant over the day. For purposes of sampling, "daily" means an operating day or 24-hour period.
6. "Commissioner" means the Commissioner of the Department of Planning and Natural Resources (DPNR) or his duly authorized representative. As the Territory has an approved Territory program



authorized by USEPA as stated in 40 CFR §123 (1983), "Director" means the Director of the Department of Planning and Natural Resources – Division of Environmental Protection (DPNR – DEP). In such circumstances, USEPA may retain authority to take certain action (see, for example 40 CFR §123.1(d) (1983), 45 Federal Register 14178, April 1, 1983, on the retention of jurisdiction over permits USEPA issued before program approval). If any condition of this permit requires the reporting of information or other action to both the Regional Administrator of USEPA and the Commissioner of DPNR, regardless of who has permit-issuing authority, the terms "Regional Administrator" and "Commissioner" will be used in place of "Director".

7. "Discharge Monitoring Report" or "DMR" means the USEPA uniform national form, including any subsequent additions, revisions, or modifications, for reporting of self monitoring results by Permittee.
8. "Grab" means an individual sample collected in less than fifteen (15) minutes.
9. "Gross" means the weight or concentration contained in the discharge. (Unless a limitation is specified as a net limitation, the limitation contained in this permit is a gross limitation).
10. "Maximum daily discharge limitation" means the highest allowable "daily discharge".
11. "Monthly" means one day of each month (the same day of each month) and a normal operating day (e.g., the 2nd Tuesday of each month).
12. "Net" means the amount of a pollutant contained in the discharge measured in appropriate units as specified herein, less the amount contained in the surface water body intake source, measured in the same units, over the same period of time, provided:
  - a. The intake water source must be drawn from the same body of water into which the discharge is made; and
  - b. In cases where the surface water body intake source is pretreated for the removal of pollutants, the intake level of a pollutant to be used in calculating the net is that level contained after the pretreatment steps.
13. "Normal range" means current ambient range of conditions of receiving waters.
14. "Regional Administrator" means the Regional Administrator of Region II of USEPA or the authorized representative of the Regional Administrator.
15. "Severe property damage" means that substantial physical damage to the treatment facilities, which would cause them to become inoperable or substantial, and permanent loss of natural resources, which can reasonably be expected to occur in the absence of a bypass. Severe property damage does not mean economic loss caused by delays in production.
16. "Toxic pollutant" means any of the pollutants listed in 40 CFR §401.15 (1974) and any modification to that list in accordance with Section 307(a)(1) of the Clean Water Act.
17. "Upset" means an exceptional incident in which there is unintentional and temporary



noncompliance with technology-based effluent limitations because of factors beyond the reasonable control of the Permittee. An upset does not include noncompliance to the extent caused by operational error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventive maintenance, or careless or improper operation.

18. "Weekly" means every seventh day (the same day of each week) and a normal operating day.

**C. GENERAL CONDITIONS**

1. Duty to Comply

- a. The Permittee must comply with all conditions of this permit. Any permit noncompliance constitutes a violation of the Virgin Islands Water Pollution Control Act and Clean Water Act and is ground for enforcement action; for permit termination, revocation and reissuance, or modification; or the denial of a permit renewal application.
- b. The Permittee shall comply with effluent standards or prohibitions established under Section 307(a) of the Clean Water Act for toxic pollutants within the time provided in the regulations that establish these standards or prohibitions, even if the permit has not been modified to incorporate the requirement.
- c. (1) 12 V.I. CODE ANN. §190 (1998 & Supp. 2004), Water Pollution Control Act provides that any person who violates any permit condition is subject to a civil penalty not to exceed \$50,000 per day of violation. Any person who willfully or negligently discharges pollutants in violation of any condition or limitation included in a permit; or violates requirements of 12 V.I. CODE ANN. §189 (1998 & Supp. 2004); or with respect to introductions of pollutants into publicly owned treatment works, violates a pretreatment standard or toxic effluent standard, shall upon conviction, be punished by a fine not less than \$5,000 per day of violation. If the conviction is for a violation committed after a first conviction of the person under this subsection, punishment is by a fine of not more than \$100,000 per day of violation.
- (2) Any person who knowingly makes any false statements, representation or certification in any application, record, report, plan or other documents filed or required to be maintained under this chapter or by any permit, rule, regulation or order issued under the Act, or who falsifies, tampers with or knowingly renders inaccurate any monitoring device or method required to be maintained under the Act, shall upon conviction, be punished by a fine of not more than \$10,000 or by imprisonment for not more than six months or both.
- (3) The Clean Water Act, Section 309(c) provides that any person who violates a permit condition implementing Section 301, 302, 306, 308, 318, or 405 of the Clean Water Act is subject to civil and criminal penalties which in several of its provisions exceed those imposed under the Virgin Islands Water Pollution Control Act.

2. Duty to Reapply. This permit and the authorization to discharge shall terminate on the expiration date indicated on the first page. In order to receive authorization to discharge after the expiration date of this permit, the Permittee must file for reissuance at least one hundred and



eighty (180) days prior to the permit's expiration.

3. Need to Halt or Reduce not a Defense. It shall not be a defense for a Permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.
4. Duty to Mitigate. The Permittee shall take all reasonable steps to minimize or prevent any discharge in violation of this permit that has a reasonable likelihood of adversely affecting human health or the environment.
5. Proper Operation and Maintenance. The Permittee shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the Permittee to achieve compliance with the conditions of this permit. Proper operation and maintenance also includes adequate laboratory controls and appropriate quality assurance procedures. This provision requires the operation of back-up or auxiliary facilities or similar systems, installed by the Permittee, when the operation is necessary to achieve compliance with the conditions of the permit.
6. Permit Actions.
  - a. This permit may be modified, revoked and reissued, or terminated during its term for cause. The filing of a request by the Permittee for a permit modification, revocation and reissuance, or termination, or a notification of planned changes or anticipated noncompliance, does not stay any permit condition.
  - b. Causes for modification, revocation and reissuance, and termination are set forth in 40 CFR §122.62, §122.63, §122.64, and 12 V.I.R.&Regs. §184-34(e) and §184-51 (2007).
    - (1) Specified causes for modification, revocation and reissuance, and termination include:
      - (a) Noncompliance by the Permittee with any condition of the permit;
      - (b) The Permittee's failure in the application or during the permit issuance process to disclose fully all relevant facts, or the Permittee's misrepresentation of any relevant facts at any time;
      - (c) A determination that the permitted discharge endangers human health or the environment and can only be regulated to acceptable levels by permit modification or termination; or
      - (d) There is a change in any condition that requires either a temporary or a permanent reduction or elimination of any discharge controlled by the permit.
    - (2) Specified causes for modification and, upon request or agreement of the Permittee, revocation and reissuance of the permit include material and substantial alterations or additions to the Permittee's operation which occurred



after permit issuance and which justify the application of permit conditions that are different or absent from this permit, (e.g., production changes, relocation or combination of discharge points, changes in the nature or mix of products produced) provided the reconstruction activities do not cause the new source permit issuance provisions of 40 CFR §122.29 (1983) to be applicable.

- c. With the exception of permit modifications which satisfy the criteria in 40 CFR §122.63 (1983) and 12 V.I.R.&Regs. §184-51(c) (2007) for "minor modifications" the applicable procedures required by 40 CFR §124 (1983) and 12 V.I. CODE ANN. §188(c) (1998 & Supp. 2004) shall be followed before this permit is modified, revoked, reissued or terminated. Notice and opportunity for hearing are as provided under 12 V.I. CODE ANN. §188 (b) -(c) (1998 & Supp. 2004).
7. Property rights. The issuance of this permit does not convey any property rights or any exclusive privileges, nor does it authorize any injury to persons or property or invasion of other private rights, or any infringement of Territorial laws or regulations.
8. Duty to Provide Information. The Permittee shall furnish to the Commissioner within a reasonable time, any information which the Commissioner may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit, or to determine compliance with this permit. The Permittee shall also furnish to the Commissioner, upon request, copies of records required to be kept by this permit.
9. Inspection and Entry. The Permittee shall allow the Regional Administrator, the Commissioner, or any other authorized representative(s), upon the presentation of credentials and any other documents as may be required by law, to:
  - a. Enter upon the Permittee's premises where a regulated facility or activity is located or conducted, or where records must be kept under the conditions of this permit;
  - b. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;
  - c. Inspect at reasonable times any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this permit; and
  - d. Sample or monitor at reasonable times, for the purposes of assuring permit compliance or as otherwise authorized by the Clean Water Act, any substances or parameters at any location.
10. Monitoring and Records.
  - a. Samples and measurements taken for the purpose of monitoring shall be representative of the monitored activity.
  - b. The Permittee shall retain records of all monitoring information, including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation, copies of all reports required by this permit, for a period of at



least three (3) years from the date of the sample, measurement report or application. This period may be extended by request of the Commissioner or Regional Administrator at any time.

- c. Records of monitoring information shall include:
  - (1) The date, exact place, and time of sampling or measurement;
  - (2) The individual(s) who performed the sampling or measurements;
  - (3) The date(s) analyses were performed;
  - (4) The individual(s) who performed the analyses;
  - (5) The analytical techniques or methods used;
  - (6) The quality assurance information specified in Part I of this permit; and
  - (7) The results of such analyses.
- d. Monitoring shall be conducted according to test procedures approved under 40 CFR §136.
- e. The Clean Water Act provides that any person who knowingly falsifies, tampers with, or renders inaccurate any monitoring device or method required to be maintained under this permit shall, upon conviction, be punished by a fine of not more than \$10,000, or by imprisonment for not more than 2 years, or by both.

11. Signatory Requirements.

- a. All permit applications shall be signed as follows:
  - (1) For a corporation, by a responsible corporate officer; or
  - (2) For a partnership or sole proprietorship, by a general partner or the proprietor, respectively; or
  - (3) For a municipality, State, Territory, Federal or other public agency, by either a principal executive officer or ranking elected official.
- b. All reports required by this permit, and other information requested by the Commissioner pursuant to the terms of this permit, including DMRs and reports of noncompliance, shall be signed as follows:
  - (1) By a person described in subsection a, or by a duly authorized representative of that person.
  - (2) A person is a duly authorized representative only if:



- (a) The authorization is made in writing by a person described in subsection a.;
  - (b) The authorization specifies either an individual or a position having responsibility for the overall operation of the regulated facility or activity such as the position of plant manager, operator of a well or well field, superintendent, position of equivalent responsibility, or an individual or position having overall responsibility for environmental matters for the company.
  - (c) The written authorization shall be submitted to the Commissioner at the mailing address detailed in Part II.A.2 above.
- (3) If a written authorization pursuant to subsection b. is no longer accurate because a different individual or position has responsibility for the overall operation of the facility, a new authorization satisfying the requirements of paragraph b. must be submitted to the Commissioner prior to or together with any reports or information to be signed by an authorized representative.
- c. Certification. Any person signing a document under subsection a. or b. shall make the following certification: "I certify under penalty of the law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."
- d. 12 V.I.R.&Regs. (2007) provides that any person who knowingly makes any false statement, representation, or certification in any record or other document submitted or required to be maintained under this permit, including monitoring reports or reports of compliance or noncompliance shall upon conviction, be punished by a fine of not more than \$10,000, or by imprisonment for not more than 2 years, or both.

## 12. Reporting Requirements

- a. Planned changes. The Permittee shall give notice to the Commissioner as soon as possible of any planned physical alterations or additions to the permitted facility. Notice is required only when:
- (1) The alteration or addition to a permitted facility may meet one of the criteria for determining whether a facility is a "new source" in 40 CFR §122.29(b) (1983); or
  - (2) The alteration or addition could significantly change the nature or increase the quantity of pollutants discharged. This notification requirement applies to pollutants which are subject neither to effluent limitations in the permit nor to



notification requirements under Part II.A.5, above.

- b. Anticipated noncompliance. The Permittee shall give advance notice to the Commissioner of any planned changes in the facility or activity that may result in noncompliance with permit requirements as soon as it becomes aware of the circumstances.
- c. Transfers
  - (1) This permit is not transferable to any person except after notice to the Commissioner. Except as provided in paragraph (2), a permit may be transferred by the existing Permittee to a new owner or operator only if the permit has been modified or revoked and reissued, or a minor modification made, to identify the new Permittee and incorporate such other requirements as may be necessary under the Clean Water Act.
  - (2) This permit may be automatically transferred to a new Permittee if:
    - (a) The existing Permittee notifies the Commissioner at least thirty (30) days in advance of the proposed transfer date in subparagraph (b);
    - (b) The notice contains a written agreement between the existing and new Permittee containing a specific date for transfer of permit responsibility, coverage, and liability between them; and
    - (c) The Commissioner does not notify the existing Permittee and the proposed new Permittee of his or her intent to modify or revoke and reissue the permit (a modification under this paragraph may also be a minor modification under 40 CFR §122.63 (1983)). If this notice is not received, the transfer is effective on the date specified in the agreement mentioned in subparagraph (b).
  - (3) If this permit is automatically transferred in accordance with the provisions of paragraph (2), the permit may be modified to reflect the automatic transfer after its effective date.
- d. Monitoring Reports.
  - (1) Monitoring results shall be reported at the intervals specified in Part I of this permit.
  - (2) Monitoring results shall be reported on a Discharge Monitoring Report (DMR).
  - (3) If the Permittee monitors any pollutant more frequently than required by the permit, using test procedures approved under 40 CFR 136 (2007) or as specified in the permit, the results of this monitoring shall be included in the calculation and reporting of the data submitted in the DMR.



- (4) Calculations for all limitations, which require averaging of measurements, shall utilize an arithmetic mean unless otherwise specified in the permit.
- e. Compliance Schedules. Reports of compliance or noncompliance with, or any progress reports on, interim or final requirements contained in any compliance schedule of this permit shall be submitted no later than fourteen (14) days following each schedule date.
- f. Twenty-four hour reporting.
  - (1) The following information shall be reported verbally to the Commissioner at (340) 773-1082 as soon as possible and at least within twenty-four (24) hours from the time the Permittee becomes aware of the circumstances:
    - (a) Any non-compliance, which may endanger health or the environment;
    - (b) Any unanticipated bypass (see 13 below) which violates any effluent limitation in the permit;
    - (c) Any upset (see 14 below) which violates any effluent limit in the permit; or
    - (d) The violation of a maximum daily discharge limitation for any of the pollutants listed in Part I of this permit is required to be reported within twenty-four (24) hours. This list includes any toxic pollutant or hazardous substance, or any pollutant specifically identified as the method to control a toxic pollutant or hazardous substance.
  - (2) In addition to the oral twenty-four (24) hour report, the Permittee shall also provide a written submission to the Commissioner within five (5) business days of the time the Permittee becomes aware of the circumstances. The written submission shall contain a description of the noncompliance and its cause; the period of noncompliance, including exact times and dates, and if the noncompliance has not been corrected, the anticipated time it is expected to continue; and steps taken or planned to reduce, eliminate, and prevent recurrence of the noncompliance.
  - (3) With respect to written reports required under paragraph (2) above, the Commissioner may waive the written report on a case- by-case basis if the oral report has been received within twenty-four (24) hours.
- g. Other noncompliance. The Permittee shall report to the Commissioner of all instances of noncompliance not reported under subsections d, e, and f at the time the monitoring report covering the period of noncompliance is submitted. The reports shall contain the information listed in paragraph (2) of subsection f., above.
- h. Other information. Where the Permittee becomes aware that it failed to submit any relevant facts in a permit application, or submitted incorrect information in a permit application or in any report to the Commissioner, it shall promptly submit such facts or information to the Commissioner.



13. Bypassing.

- a. Bypass not violating limitations. The Permittee may allow any bypass to occur which does not cause effluent limitations to be violated, but only if it also is for essential maintenance to assure efficient operation. These bypasses are not subject to the provisions of subsections b. and c.
- b. Notice
  - (1) Anticipated bypass. If the Permittee knows in advance of the need for a bypass, it shall submit prior notice, if possible at least ten (10) days before the date of the bypass.
  - (2) Unanticipated bypass. The Permittee shall submit notice of an unanticipated bypass as required in subsection f. of section 12 above.
- c. Prohibition of bypass.
  - (1) Bypass is prohibited and the Director may take enforcement action against a Permittee for bypass, unless:
    - (a) Bypass was unavoidable to prevent loss of life, personal injury, or severe property damage;
    - (b) There were no feasible alternatives to the bypass, such as auxiliary treatment facilities, retention of untreated wastes, or maintenance during normal periods of equipment downtime. This condition is not satisfied if adequate back up equipment should have been installed in the exercise of reasonable engineering judgment to prevent a bypass which occurred during normal periods of equipment downtime or maintenance; and
    - (c) The Permittee submitted notices as required under subsection 13.b.

14. Upset.

- a. Effect of an upset. An upset constitutes an affirmative defense to an action brought for noncompliance with technology-based effluent limitations if the requirements of subsection b. are met. No determination made during administrative review of claims that noncompliance was caused by upset, and before an action for noncompliance, is final administrative action subject to judicial review.
- b. Conditions necessary for a demonstration of upset. A Permittee who wishes to establish the affirmative defense of upset shall demonstrate, through properly signed, contemporaneous operating logs, or other relevant evidence that:
  - (1) An upset occurred and that the Permittee can identify the cause(s) of the upset;



- (2) The permitted facility was at the time being properly operated; and
  - (3) The Permittee submitted notice of the upset as required in subsection f. of section 12 above; and
  - (4) The Permittee complied with any remedial measures required under section 4 above (duty to mitigate).
  - (5) Burden of proof. In any enforcement proceeding the Permittee seeking to establish the occurrence of an upset has the burden of proof.
15. Removed substances. Solids, sludge, filter backwash or other pollutants removed in the course of treatment or control of wastewaters and/or the treatment of intake waters shall be disposed of in a manner such as to prevent any pollutant from such materials from entering navigable waters. The following data shall be reported together with the monitoring data required in Part II, A.2.:
- a. The sources of the materials to be disposed of;
  - b. The approximate volumes and weights;
  - c. The method by which they were removed and transported; and
  - d. Their final disposal locations.
16. Oil and Hazardous Substance Liability. The imposition of responsibilities upon or the institution of any legal action against the Permittee under section 311 of the Clean Water Act shall be in conformance with regulations promulgated pursuant to Section 311 to discharges from facilities with TPDES permits.
17. Reopener Clause for Toxic Effluent Limitations. Notwithstanding any other condition of this permit, if any applicable toxic effluent standard or prohibition is promulgated under Section 301(b)(2)(C) and (d), 304(b)(2) and 307(a)(2) of the Clean Water Act and that effluent standard or limitation is more stringent than any effluent limitation in the permit or controls a pollutant not limited in the permit, this permit shall be promptly modified or revoked and reissued to conform to that effluent standard or prohibition.
18. Territorial Laws. Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the Permittee from any responsibilities, liabilities, or penalties established pursuant to any applicable Territorial Law or regulation under authority preserved by Section 510 of the Act. The issuance of this permit does not preempt any duty to obtain Territorial assent required by law for the discharge.
19. Availability of Information.
- a. TPDES permits, effluent data, and information required by TPDES application forms provided by the Commissioner under 40 CFR, §122.21 (1983) (including information submitted on the forms themselves and any attachments used to supply information



required by the forms) shall be available for public inspection at the offices of the Regional Administrator and the Commissioner.

- b. In addition to the information set forth in subsection a., any other information submitted to USEPA in accordance with the conditions of this permit shall be made available to the public without further notice unless a claim of business confidentiality is asserted at the time of submission in accordance with the procedures in 40 CFR, Part 2 (1983) (Public Information).
  - c. If a claim of confidentiality is made for information other than that enumerated in subsection a., that information shall be treated in accordance with the procedures in 40 CFR Part 2 (1983). Only information determined to be confidential under those procedures shall not be made available by USEPA for public inspection.
20. Severability. The Provisions of this permit are severable, and if any provision of this permit, or the application of any provision of this permit to any circumstance, is held invalid, the application of such provision to other circumstances, and the remainder of this permit, shall not be affected thereby.

**D. EFFECTIVENESS OF PERMIT**

- 1. This permit shall become effective in its entirety on the date indicated on the first page of this permit unless a request for a hearing is made in accordance with the provisions of 12 V.I. CODE ANN. §188(c) (1998 & Supp. 2004)

-END-